IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re d	application of:		
	WARREN M. SALMAN AKI ALAN G. WO		ART UNIT:
Divisio	on of Serial No. (filed on Septe	09/961,646 ember 25, 2001	
Serial	No.:		EXAMINER:
Filing I	Date: APRIL 8, 2	004	
FOR:		CTOR INTERCONNECTS HAVING INED CONTACTS	
Dock	et No. 97-1363.6		
		INFORMATION DISCLOSURE STATEME April 8, 2004	:NT
Com P.O.	Stop Patent . nmissioner for Box 1450 andria, VA 22	· Patents	
Sir:			
Discl	The follow osure Staten	ing sections are being submitted nent:	for this Information
1.	x	Preliminary Statements	
2.	x	FORM PTO SB/08	
3.		Statement As to Information Materia Examination Not Found in Patents of	
4.	x	Identification of Prior Application in Information Was Already Cited and are Submitted Or Need be Submit	I For Which No Copies
5.		Cumulative Patents or Publications.	
6.		Copies of Listed Information Items , This Statement.	Accompanying

7.		Concise Explanation of Non-English Language Listed Information Items.
8.		Translation(s) of Non-English Language Documents.
9.	<u> </u>	Identification of Person(s) Making This Information Disclosure Statement.

Section 1. Preliminary Statements

Applicants submit herewith patents, publications or other information of which they are aware which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. §1.56.

The filing of this information disclosure statement shall not be construed as a representation that a search has made (37 C.F.R. 1.56 (g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

Section 2. Identification of Person(s) Making This INFORMATION DISCLOSURE STATEMENT

The person making this statement is (a) the inventor(s) who signs below			
		SIGNATURE OF INVENTOR	
		Name of Inventor	
(b)	\underline{x} the attorn	ey who signs below on the basis of:	
		the information supplied by the inventor(s)	
·		an individual associated with the filing and prosecution of this application (37 CFR 1.56(c))	
	x	the information in the attornev's file.	

Section 3. Identification of Prior Application In Which Listed Information Was Already Cited and For Which No Copies are Submitted or Needed Be Submitted.

This application relies, under 35 U.S.C. 120, on the earlier filing date of application serial no. 09/961,646, filed 09/25/2001, which is a division of serial no. 09/385,606, filed 08/30/1999, Patent No. 6,294,387, which is a division of serial no. 08/993,965, filed 12/18/1997, Patent No. 6,107,109.

The attached list of references were submitted to and/or cited by the Office in these prior applications and, therefore, are not required to be provided in this application.

DATED this 8th day of April, 2004.

Respectfully submitted:

Stephen A. Groffon Registration No. 28,418 Attorney for Applicants

2764 South Braun Way Lakewood, CO 80228 Telephone: (303) 989 6353 FAX: (303) 989 6538

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Mail Stop Patent Application, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date of Signature

Stephen A. Gratton, Attorney for Applicants

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Sub	stitute for form 1449/PTO	Complete if Known			
		Application Number		-	
I A	FORMATION DISCLOSURE	Filing Date	April 8, 2004	_	
		First Named Inventor	WARREN M. FARNWORTH	_	
S	TATEMENT BY APPLICANT	Art Unit			
	(Use as many sheets as necessary)	Examiner Name			
Sheet	1 of 4	Attorney Docket Number	97-1363.6	フ	

			U. S. PATEN	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan
		Number-Kind Code ² (F known)			Figures Appear
	Α	^{US-} 5,046,239	09/10/1991	Miller	
	В	^{US-} 5,063,177	11/05/1991	Geller et al.	
	С	^{US-} 5,172,050	12/15/1992	Swapp	
	D	^{US-} 5,222,014	06/22/1993	Lin	
	Ε	^{US-} 5,229,647	07/20/1993	Gnadinger	
	F	^{US-} 5,236,551	08/17/1993	Pan	
	G	^{US-} 5,249,450	10/05/1993	Wood et al.	
	Н	^{US-} 5,404,044	04/04/1995	Booth et al.	
	_	^{US-} 5,420,520	05/30/1995	Anschel et al.	
	J	^{US-} 5,426,072	06/20/1995	Finnila	
	К	^{US-} 5,483,741	01/16/1996	Akram et al.	
	L	^{US-} 5,484,647	01/16/1996	Nakatani et al.	
	М	^{US-} 5,487,999	01/30/1996	Farnworth	
	Ν	^{US-} 5,528,080	06/18/1996	Goldstein	
	0	^{US-} 5,541,525	07/30/1996	Wood et al.	
	Р	^{US-} 5,557,844	09/24/1996	Bhatt et al.	
	Q	^{US-} 5,578,526	11/26/1996	Akram et al.	<u> </u>
	R	^{US-} 5,592,736	01/14/1997	Akram et al.	
	S	^{US-} 5,607,818	03/04/1997	Akram et al.	-

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Г
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Substitute for form 1449/PTO	Complete if Known			
Substitute for form 1443/F TO	Application Number			
INTORDATION DICCLOSIDE	Filing Date	April 8, 2004		
INFORMATION DISCLOSURE	First Named Inventor	WARREN M. FARNWORTH		
STATEMENT BY APPLICANT	Art Unit			
(Use as many sheets as necessary)	Examiner Name			
thoot 2 of 4	Attorney Docket Number	97-1363.6		

Examiner	Cite	Document Number	Publication Date	DOCUMENTS Name of Patentee or	Pages, Columns, Lines, Where
nitials*	No.1	Number-Kind Code ^{2 (F trown)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
	T	^{US-} 5,633,122	05/27/1997	Tuttle	
	U	^{US-} 5,634,267	06/03/1997	Farnworth et al.	
	٧	^{US-} 5,674,785	10/07/1997	Akram et al.	
	W	^{US-} 5,686,317	11/11/1997	Akram et al.	
	X	^{US-} 5,716,218	02/10/1998	Farnworth et al.	
	Υ	^{US-} 5,739,585	04/14/1998	Akram et al.	
	AA	^{US-} 5,781,022	07/14/1998	Wood et al.	
	AB	us- 5,783,461	07/14/1998	Hembree	
	AC	^{US-} 5,783,865	07/21/1998	Higashiguchi et al.	
	AD	^{US-} 5,796,590	08/18/1998	Klein	
	AE	^{US-} 5,801,452	009/01/1998	Farnworth et al.	
	AF	^{US-} 5,815,000	09/29/1998	Farnworth et al.	
	AG	^{US-} 5,834,945	11/10/1998	Akram	
··-	AH	^{US-} 5,869,974	02/09/1999	Akram et al.	
	AI	us- 5,870,289	02/09/1999	Tokuda et al.	
	AJ	^{US-} 5,876,580	03/02/1999	Lykins	
	AK	^{US-} 5,878,485	03/09/1999	Wood et al.	
	AL	^{US-} 5,896,036	04/20/1999	Wood et al.	
	AM	^{US-} 5,915,977	06/19/1999	Hembree et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
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Substitute for form 1449/PTO	Complete If Known		
Substitute for form 1449/PTO	Application Number		
INFORMATION DISCLOSURE	Filing Date	April 8, 2004	
	First Named Inventor	WARREN M. FARNWORTH	
Statement by applicant	Art Unit		
(Use as many sheets as necessary)	Examiner Name		
Sheet 3 of 4	Attorney Docket Number	97-1363.6	

				DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (F Annount)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AN	^{US-} 5,929,647	07/17/1999	Akram et al.	
	AO	^{US-} 5,931,685	08/03/1999	Hembree et al.	
	AP	^{US-} 5,936,847	08/10/1999	Kazle	
	AQ	^{US-} 5,952,840	09/14/1999	Farnworth et al.	
	AR	^{US-} 5,962,921	10/05/1999	Farnworth et al.	
	AS	^{US-} 6,013,948	01/11/2000	Akram et al.	
	AT	^{US-} 6,040,702	03/21/2000	Hembree et al.	
	ΑU	^{US-} 6,107,109	08/22/2000	Akram et al.	
	AV	^{US-} 6,107,119	08/22/2000	Farnworth et al.	
	AW	^{US-} 6,114,240	09/05/2000	Akram et al.	
	AX	^{US-} 6,162,997	12/19/2000	Memis	
	AY	^{US-} 6,294,837 B1	09/25/2001	Akram et al.	
	AZ	^{US-} 6,353,328 B2	03/05/2002	Akram et al.	
	ВА	^{US-} 6,356,098 B1	03/12/2002	Akram et al.	
	BB	^{US-} 6,362,637 B2	03/26/2002	Farnworth et al.	
	ВС	^{US-} 6,400,172 B1	06/04/2002	Akram et al.	
	BD	^{US-} 6,417,685 B1	07/09/2002	Akram et al.	
	BE	^{US-} 6,437,591 B1	08/20/2002	Farnworth et al.	
-	BF	^{US-} 6,451,624 B1	09/17/2002	Farnworth et al.	

FOREIGN PATENT DOCUMENTS						
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	(Use as many sheets as necessary)			Art Unit		
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Sheet	4	of	4	Attorney Docket Number	97-1363.6	
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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	ВG	T. R. ANTHONY. "Forming Electrical Interconnects Through Semiconductor Wafers", American Institute of Physics, 1981, pgs 5340-5349.	

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Signature	Considered	

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